

US PATENT & TRADEMARK OFFICE, CLAIMS, CONTINUATION IN PART CIP 4.4CLAIMS

1. - 11. [Cancel]

.12. [NEW] In a vehicle having a vehicle structure comprising a right and a left side a gravity aided independantly ejectable mechanism for each of said passenger support mechanisms, wherein said independently ejectable mechanisms for the passenger support mechanisms on one or both of the left side and the rights side of the vehicle are mounted indirectly to fixed body members on the side of said vehicle to allow said passenger support mechanisms to eject by moving substantially along a lateral axis to a facing substantially outside the vehicle on its side thereby allowing said passengers that ride on said passenger support mechanisms to egress and ingress said vehicle ejecting said gravity aided independently ejectable mechanisms.

.13. [NEW] In a vehicle with a vehicle structure as in claim 12, means to facilitate egress and ingress of a passenger with the forces of gravity on the passenger and the forces and timing of motion of the passenger in sitting down and standing up in said passenger support mechanism at the time of egress and ingress.

.14. [NEW] In a vehicle with a vehicle structure as in claim 13, wherein said means to facilitate egress and ingress of said passenger comprises a substantially lateral sliding movement of said passenger.

.15. [NEW] The vehicle structure of claim 12, with a means to utilize gravitational forces to slidably drive in the required direction, said passenger support mechanisms, comprising:

a) said pairs of safety beams/lower primary slides, a member of each pair on each of the left and right side of the vehicle, each member comprising a sliding surface, said safety beams/lower primary slides being pivotally mounted on the fixed body members of the vehicle such that said pivotally mounted safety beams/lower primary slides can move to and be locked into one of at least two possible inclinations from the center of the vehicle, wherein said sliding surface on each of said pivotally mounted lower primary slides assumes a predetermined inclination to facilitate sliding of slidably attached passenger support mechanisms, in the required direction;

b) energy storing devices including spring mechanisms indirectly attached to each of said ejectable passenger support mechanisms, that partially convert and store the potential

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1 energy of the passengers and said ejectable passenger support mechanisms moving under
2 gravity;

3 c) passenger operable switching devices installed on both the inside and the outside of each
4 of the sides of the vehicle immediately adjoining the outermost passenger support
5 mechanisms on either side of said vehicle in positions such that said passenger operable
6 switching devices on the inside of each of said sides of vehicle is accessible to passengers
7 in the outermost passenger support mechanisms and said passenger operable switching
8 devices on the outside of said sides of vehicle are accessible to entering passengers
9 outside the vehicle;

10 d) logic devices that utilize the presence of the weight of the passengers in each of said
11 passenger support mechanisms, the status of passenger operable switching devices inside
12 and outside the vehicle and the position of said ejectable passenger support mechanisms,
13 to operate locking devices that lock said primary slide to a range of said predetermined
14 inclinations and lock the passenger support mechanisms and attached devices when in the
15 operating position, wherein said range of predetermined inclinations of the primary slide
16 are such that at either end of said range, compressive forces at the outer end of said
17 primary slides will be transferred to the fixed members of the vehicle along a path
18 entirely within the primary slide, to ensure compressive strength in any inclination of the
19 primary slides within said range of inclinations.

20 e) Spring mountings attached at one end to the fixed body members and at the other end to
21 said pivotally mounted primary slides such that the primary slides are supported while
22 said primary slides are in the operating position and maintained by said spring mountings
23 at the highest inclinations upwards from the center of the vehicle possible within the
24 range of inclinations allowable in the operating position, thereby providing a shock
25 absorption function for the passengers in the vehicle relative to the fixed body members
26 and the surface traversed by the vehicle.

27 .16. [NEW] A vehicle structure as in claim 12, wherein said passenger structure comprises a
28 protective shield on the outer side of said passenger to protect said passenger when said
29 vehicle is in an operating position and wherein said protective shield does not impede egress
30 and ingress when said vehicle structure is in an access position.